**Analyzing Data .........................................Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. An experiment studies the effects of an experimental drug on the number of offspring a mother mouse has. 10 female mice are given the drug and then impregnated. The number of mice in their litters is compared to the litters of mice that did not take the drug.

**Table 1: Number of Babies in Litter**

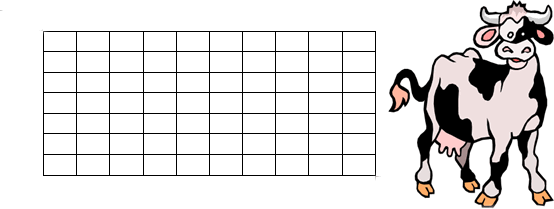
|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Group A (drug) | 5 | 6 | 4 | 8 | 5 | 2 | 7 | 12 | 12 | 8 |
| Group B (control) | 4 | 4 | 6 | 6 | 5 | 6 | 4 | 7 | 5 | 3 |

Based on the data, what would you conclude about the drug? How do you figure out whether the drug worked?

2. A type of feed claims to boost the growth rate of cows. The feed is tested on two twin newborn cows. Bessie receives the experimental feed, and Bertha receives regular corn feed. Their weights are recorded below. Graph the data below.

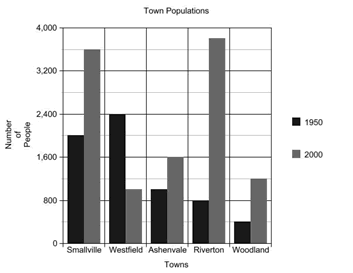
**Table 2: Weight for Twin Calves**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Month | April | May | June | July | Aug |
| Bessie | 150 lbs | 210 lbs | 260 lbs | 320 lbs | 400 lbs |
| Bertha | 150 lbs | 250 lbs | 290 lbs | 340 lbs | 400 lbs |



Both cows ended at the same weight, but did the experimental feed change the way they gained weight at all? Describe your conclusions about the experimental feed.

Why is it important that the experiment used twin cows?



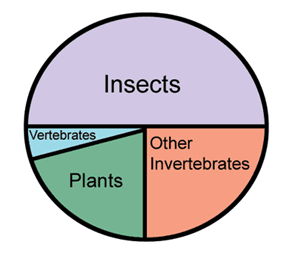
3. Use the graph on the right to answer the questions below.

a. According to the graph, which town grew the fastest?

b. Which town declined in population?

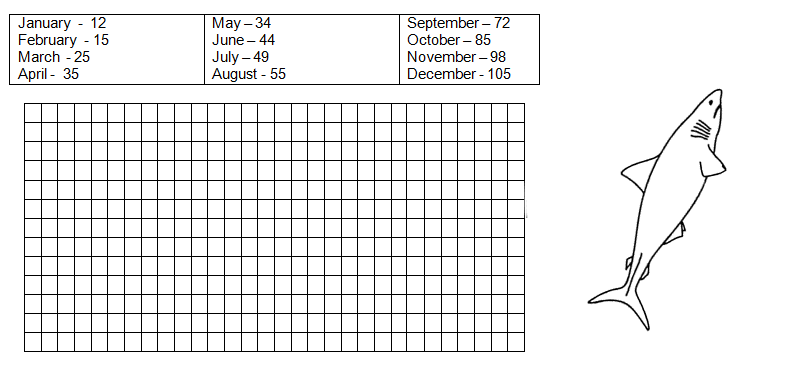
c. Which town had the smallest change in population?

d. What is the population of Woodland in 2000?

4. Use the pie chart to answer the questions below.

1. According to the graph, which group of organisms has the most number of species?
2. What is the total percentage for all invertebrates?
3. Approximately what percentage are vertebrates?

5. The population of tiger sharks off the coast of Florida was recorded over several months. Graph the tiger shark populations below.



The number of nurse sharks was also recorded for this time period; though the person recorded the number was not as reliable as the person recording tiger shark numbers. The following data was taken on nurse sharks. Use a different color to graph the nurse shark population on the graph above.

March - 60 | April - 52 | July - 38 | August - 20 | November- 14 | December - 11

a. At what month would you expect the number of nurse sharks to equal the number of tiger sharks?

b. What does the graph tell you about the trends both shark populations?